



OIEP

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/964,678A

DATE: 02/06/2002

TIME: 11:39:29

Input Set : A:\seqlist 0609\_4370002 ascii  
Output Set: N:\CRF3\02062002\I964678A.raw

ENTERED

5 <110> APPLICANT: de la Monte, Suzanne  
7 Wands, Jack R.  
11 <120> TITLE OF INVENTION: Transgenic Animals and Cell Lines for Screening Drugs  
12 Effective for the Treatment or Prevention of  
13 Alzheimer's Disease  
17 <130> FILE REFERENCE: 0609.4370002  
21 <140> CURRENT APPLICATION NUMBER: 09/964,678A  
23 <141> CURRENT FILING DATE: 2001-09-28  
27 <150> PRIOR APPLICATION NUMBER: 09/380,203  
29 <151> PRIOR FILING DATE: 2000-04-25  
33 <150> PRIOR APPLICATION NUMBER: PCT/US98/03685  
35 <151> PRIOR FILING DATE: 1998-02-26  
39 <150> PRIOR APPLICATION NUMBER: 60/038,908  
41 <151> PRIOR FILING DATE: 1997-02-26  
45 <160> NUMBER OF SEQ ID NOS: 14  
49 <170> SOFTWARE: PatentIn version 3.1  
53 <210> SEQ ID NO: 1  
55 <211> LENGTH: 1442  
57 <212> TYPE: DNA  
59 <213> ORGANISM: Unknown  
63 <220> FEATURE:  
65 <223> OTHER INFORMATION: AD7c-NTP cDNA  
67 <220> FEATURE:  
69 <221> NAME/KEY: CDS  
71 <222> LOCATION: (15)..(1139)  
73 <223> OTHER INFORMATION:  
77 <400> SEQUENCE: 1  
78 tttttttttt tgag atg gag ttt tcg ctc ttg ttg ccc agg ctg gag tgc 50  
79 Met Glu Phe Ser Leu Leu Leu Pro Arg Leu Glu Cys 10  
80 1 5 10  
82 aat ggc gca atc tca gct cac cgc aac ctc cgc ctc ccg ggt tca agc 98  
83 Asn Gly Ala Ile Ser Ala His Arg Asn Leu Arg Leu Pro Gly Ser Ser 25  
84 15 20 25  
86 gat tct cct gcc tca gcc tcc cca gta gct ggg att aca ggc atg tgc 146  
87 Asp Ser Pro Ala Ser Ala Ser Pro Val Ala Gly Ile Thr Gly Met Cys 40  
88 30 35 40  
90 acc cac gct cgg cta att ttg tat ttt ttt tta gta gag atg gag ttt 194  
91 Thr His Ala Arg Leu Ile Leu Tyr Phe Phe Leu Val Glu Met Glu Phe 60  
92 45 50 55  
94 ctc cat gtt ggt cag gct ggt ctc gaa ctc ccg acc tca gat gat ccc 242  
95 Leu His Val Gly Gln Ala Gly Leu Glu Leu Pro Thr Ser Asp Asp Pro 75  
96 65 70  
98 tcc gtc tcg gcc tcc caa agt gct aga tac agg act ggc cac cat gcc 290

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/964,678A

DATE: 02/06/2002  
 TIME: 11:39:29

Input Set : A:\seqlist\_0609\_4370002 ascii  
 Output Set: N:\CRF3\02062002\I964678A.raw

```

99 Ser Val Ser Ala Ser Gln Ser Ala Arg Tyr Arg Thr Gly His His Ala
100                               80                               85                               90
102 cgg ctc tgc ctg gct aat ttt tgt ggt aga aac agg gtt tca ctg atg 338
103 Arg Leu Cys Leu Ala Asn Phe Cys Gly Arg Asn Arg Val Ser Leu Met
104                               95                               100                               105
106 tgc cca agc tgg tct cct gag ctc aag cag tcc acc tgc ctc agc ctc 386
107 Cys Pro Ser Trp Ser Pro Glu Leu Lys Gln Ser Thr Cys Leu Ser Leu
108                               110                               115                               120
110 cca aag tgc tgg gat tac agg cgt gca gcc gtg cct ggc ctt ttt att 434
111 Pro Lys Cys Trp Asp Tyr Arg Arg Ala Ala Val Pro Gly Leu Phe Ile
112 125                               130                               135                               140
114 tta ttt ttt tta aga cac agg tgt ccc act ctt acc cag gat gaa gtg 482
115 Leu Phe Phe Leu Arg His Arg Cys Pro Thr Leu Thr Gln Asp Glu Val
116                               145                               150                               155
118 cag tgg tgt gat cac agc tca ctg cag cct tca act cct gag atc aag 530
119 Gln Trp Cys Asp His Ser Ser Leu Gln Pro Ser Thr Pro Glu Ile Lys
120                               160                               165                               170
122 cat cct cct gcc tca gcc tcc caa gta gct ggg acc aaa gac atg cac 578
123 His Pro Pro Ala Ser Ala Ser Gln Val Ala Gly Thr Lys Asp Met His
124                               175                               180                               185
126 cac tac acc tgg cta att ttt att ttt att ttt aat ttt ttg aga cag 626
127 His Tyr Thr Trp Leu Ile Phe Ile Phe Ile Phe Asn Phe Leu Arg Gln
128                               190                               195                               200
130 agt ctc aac tct gtc acc cag gct gga gtg cag tgg cgc aat ctt ggc 674
131 Ser Leu Asn Ser Val Thr Gln Ala Gly Val Gln Trp Arg Asn Leu Gly
132 205                               210                               215                               220
134 tca ctg caa cct ctg cct ccc ggg ttc aag tta ttc tcc tgc ccc agc 722
135 Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Leu Phe Ser Cys Pro Ser
136                               225                               230                               235
138 ctc ctg agt agc tgg gac tac agg cgc cca cca cgc cta gct aat ttt 770
139 Leu Leu Ser Ser Trp Asp Tyr Arg Arg Pro Pro Arg Leu Ala Asn Phe
140                               240                               245                               250
142 ttt gta ttt tta gta gag atg ggg ttc acc atg ttc gcc agg ttg atc 818
143 Phe Val Phe Leu Val Glu Met Gly Phe Thr Met Phe Ala Arg Leu Ile
144                               255                               260                               265
146 ttg atc tct gga cct tgt gat ctg cct gcc tcg gcc tcc caa agt gct 866
147 Leu Ile Ser Gly Pro Cys Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala
148                               270                               275                               280
150 ggg att aca ggc gtg agc cac cac gcc cgg ctt att ttt aat ttt tgt 914
151 Gly Ile Thr Gly Val Ser His His Ala Arg Leu Ile Phe Asn Phe Cys
152 285                               290                               295                               300
154 ttg ttt gaa atg gaa tct cac tct gtt acc cag gct gga gtg caa tgg 962
155 Leu Phe Glu Met Glu Ser His Ser Val Thr Gln Ala Gly Val Gln Trp
156                               305                               310                               315
158 cca aat ctc ggc tca ctg caa cct ctg cct ccc ggg ctc aag cga ttc 1010
159 Pro Asn Leu Gly Ser Leu Gln Pro Leu Pro Pro Gly Leu Lys Arg Phe
160                               320                               325                               330
162 tcc tgt ctc agc ctc cca agc agc tgg gat tac ggg cac ctg cca cca 1058
163 Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Gly His Leu Pro Pro

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/964,678A

DATE: 02/06/2002  
TIME: 11:39:29Input Set : A:\seqlist 0609\_4370002 ascii  
Output Set: N:\CRF3\02062002\I964678A.raw

```

164          335          340          345          1106
166 cac ccc gct aat ttt tgt att ttc att aga ggc ggg gtt tca cca tat
167 His Pro Ala Asn Phe Cys Ile Phe Ile Arg Gly Gly Val Ser Pro Tyr
168          350          355          360          1159
170 ttg tca ggc tgg tct caa act cct gac ctc agg tgaccacct gcctcagcct
171 Leu Ser Gly Trp Ser Gln Thr Pro Asp Leu Arg
172 365          370          375          1219
174 tccaaagtgc tgggattaca ggcgtgagcc acctcaccca gccggctaata ttagataaaa
176 aaatatgtag caatgggggg tcttgctatg ttgccaggc tgggtctcaaa cttctggcctt
178 catgcaatcc ttccaaatga gccacaacac ccagccagtc acatttttta aacagttaca
180 tctttatttt agtatactag aaagtaatac aataaacatg tcaaacctgc aaattcagta
182 gtaacagagt tcttttataa cttttaaaca aagctttaga gca          1442
185 <210> SEQ ID NO: 2
187 <211> LENGTH: 375
189 <212> TYPE: PRT
191 <213> ORGANISM: Unknown
195 <220> FEATURE:
197 <223> OTHER INFORMATION: AD7c-NTP cDNA
199 <400> SEQUENCE: 2
201 Met Glu Phe Ser Leu Leu Leu Pro Arg Leu Glu Cys Asn Gly Ala Ile
202 1          5          10          15
205 Ser Ala His Arg Asn Leu Arg Leu Pro Gly Ser Ser Asp Ser Pro Ala
206          20          25          30
209 Ser Ala Ser Pro Val Ala Gly Ile Thr Gly Met Cys Thr His Ala Arg
210          35          40          45
213 Leu Ile Leu Tyr Phe Phe Leu Val Glu Met Glu Phe Leu His Val Gly
214          50          55          60
217 Gln Ala Gly Leu Glu Leu Pro Thr Ser Asp Asp Pro Ser Val Ser Ala
218 65          70          75          80
221 Ser Gln Ser Ala Arg Tyr Arg Thr Gly His His Ala Arg Leu Cys Leu
222          85          90          95
225 Ala Asn Phe Cys Gly Arg Asn Arg Val Ser Leu Met Cys Pro Ser Trp
226          100          105          110
229 Ser Pro Glu Leu Lys Gln Ser Thr Cys Leu Ser Leu Pro Lys Cys Trp
230          115          120          125
233 Asp Tyr Arg Arg Ala Ala Val Pro Gly Leu Phe Ile Leu Phe Phe Leu
234          130          135          140
237 Arg His Arg Cys Pro Thr Leu Thr Gln Asp Glu Val Gln Trp Cys Asp
238 145          150          155          160
241 His Ser Ser Leu Gln Pro Ser Thr Pro Glu Ile Lys His Pro Pro Ala
242          165          170          175
245 Ser Ala Ser Gln Val Ala Gly Thr Lys Asp Met His His Tyr Thr Trp
246          180          185          190
249 Leu Ile Phe Ile Phe Ile Phe Asn Phe Leu Arg Gln Ser Leu Asn Ser
250          195          200          205
253 Val Thr Gln Ala Gly Val Gln Trp Arg Asn Leu Gly Ser Leu Gln Pro
254          210          215          220
257 Leu Pro Pro Gly Phe Lys Leu Phe Ser Cys Pro Ser Leu Leu Ser Ser
258 225          230          235          240

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/964,678A

DATE: 02/06/2002

TIME: 11:39:29

Input Set : A:\seqlist 0609\_4370002 ascii

Output Set: N:\CRF3\02062002\I964678A.raw

261 Trp Asp Tyr Arg Arg Pro Pro Arg Leu Ala Asn Phe Phe Val Phe Leu  
 262 245 250 255  
 265 Val Glu Met Gly Phe Thr Met Phe Ala Arg Leu Ile Leu Ile Ser Gly  
 266 260 265 270  
 269 Pro Cys Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly  
 270 275 280 285  
 273 Val Ser His His Ala Arg Leu Ile Phe Asn Phe Cys Leu Phe Glu Met  
 274 290 295 300  
 277 Glu Ser His Ser Val Thr Gln Ala Gly Val Gln Trp Pro Asn Leu Gly  
 278 305 310 315 320  
 281 Ser Leu Gln Pro Leu Pro Pro Gly Leu Lys Arg Phe Ser Cys Leu Ser  
 282 325 330 335  
 285 Leu Pro Ser Ser Trp Asp Tyr Gly His Leu Pro Pro His Pro Ala Asn  
 286 340 345 350  
 289 Phe Cys Ile Phe Ile Arg Gly Gly Val Ser Pro Tyr Leu Ser Gly Trp  
 290 355 360 365  
 293 Ser Gln Thr Pro Asp Leu Arg  
 294 370 375  
 297 <210> SEQ ID NO: 3  
 299 <211> LENGTH: 1381  
 301 <212> TYPE: DNA  
 303 <213> ORGANISM: Unknown  
 307 <220> FEATURE:  
 309 <223> OTHER INFORMATION: Incorrect sequence of AD7c-NTP DNA  
 311 <400> SEQUENCE: 3

312 tttttttttt gagatggagt tttcgctctt gttgcccagg ctggagtga atggcgcaat 60  
 314 ctcagctcac cgcaacctcc gcctcccggg ttcaagcgat tctcctgcct cagcctcccc 120  
 316 agtagctggg attacaggca tgtgcaccac gctcggctaa ttttgtattt ttttttagta 180  
 318 gagatggagt ttaactccat gttggtcagg ctgggtctga actcccgacc tcagatgatc 240  
 320 tcccgtctcg gcctgcccaa agtgctgaga ttacaggcat gagccaccat gccgggcctc 300  
 322 tgccctggcta atttttgtgg tagaaacagg gtttcaactga tgttgcccaa gctgggtctc 360  
 324 tgagctcaag cagtcacact gcctcagcct cccaaagtgc tgggattaca ggcgtcagcc 420  
 326 gtgcctggcc tttttatttt atttttttta agacacaggt gtaccactct taccaggat 480  
 328 gaagtgcagt ggtgtgatca cagctcactg cagccttcaa ctctgagat caagcaatcc 540  
 330 tcctgcctca gcctcccaa tagctgggac caaagacatg caccactaca cctggtaatt 600  
 332 tttattttta tttttaattt tttgagacag agtctcactc tgtcaccag gctggagtgc 660  
 334 agtggcgcaa tcttggtcca ctgcaacctc tgccctcccg gttcaagtta ttctcctgcc 720  
 336 ccagcctcct gagtagctgg gactacaggc gccaccacg cctagctaat ttttttgtat 780  
 338 ttttagtaga gatggggttt caccatgttc gccagggtga tcttgatctc ttgaccttgt 840  
 340 gatctgcctg cctcggccta cccaaagtgc tgggattaca ggtcgtgact ccacgcgggc 900  
 342 ctatttttaa tttttgtttg tttgaaatgg aatctcactc tgttaccag gtcggagtgc 960  
 344 aatggcaaat ctcggtact cgcaacctct gcctcccggg tcaagcgatt ctctgtctc 1020  
 346 agcctcccaa gcagctggga ttacgggacc tgcaaccac cccgctaatt tttgtatttt 1080  
 348 cattagaggc gggtttacca tatttgtcag gctgggtctc aaactcctga cctcaggtga 1140  
 350 cccacctgcc tcagccttcc aaagtgtcgg gattacaggc gtgagccacc tcaccagcc 1200  
 352 ggctaatttg gaataaaaaa tatgtagcaa tgggggtctg ctatgttgcc caggctggtc 1260  
 354 tcaaaacttct ggcttcagtc aatccttcca aatgagccac aacaccagc cagtcacatt 1320  
 356 ttttaaacag ttacatcttt attttagtat actagaaagt aatacaataa acatgtcaaa 1381  
 358 c

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/964,678A

DATE: 02/06/2002

TIME: 11:39:29

Input Set : A:\seqlist 0609\_4370002 ascii  
 Output Set: N:\CRF3\02062002\I964678A.raw

```

361 <210> SEQ ID NO: 4
363 <211> LENGTH: 1418
365 <212> TYPE: DNA
367 <213> ORGANISM: Unknown
371 <220> FEATURE:
373 <223> OTHER INFORMATION: Incorrect sequence of AD7c-NTP cDNA
375 <400> SEQUENCE: 4
376 tttttttttt gagatggagt tttcgtcttt gttgccagg ctggagtgca atggcgcaat 60
378 ctcagctcac cgcaacctcc gcctcccggg ttcaagcgat tctcctgcct cagcctcccc 120
380 agtaggctgg gattacaggc atgtgcacca cgctcggcta attttgatt ttttttagt 180
382 agagatggag tttctccatg ttggtcaggc tggctcgaac ctccgacctc agatgatcct 240
384 cccgtctcgg cctcccacaa tgctagatac aggactgagc accatgcccg gcctctgcct 300
386 ggctaatttt tgtggtagaa acagggtttc actgatgtgc ccaagctggg ctctgagct 360
388 caagcagtc acctgcctca gcctcccaaa gtgctgggat tacaggcgtg cagccgtgcc 420
390 tggccttttt attttatttt ttttaagaca cagggtgtcc actcttacc aggatgaagt 480
392 gcagtgggtg gatcacagct cactgcagcc ttcaactctg agatcaagca tctcctgcc 540
394 tcagcctccc aaagtagctg ggaccaaaga catgcaccac tacacctggc taatttttat 600
396 tttttatttt aattttttga gacagagtct caactctgtc acccaggctg gagtgcagtg 660
398 gcgcaatctt ggctcactgc aacctctgcc tcccgggttc aagttattct cctgccccag 720
400 cctcctgagt agctgggact acaggcgccc accacgccta gctaattttt ttgtattttt 780
402 agtagagatg gggtttcacc atgttcgcca ggttgatgct agatctcttg acctgtgat 840
404 ctgcctgcct cggcctccca aagtgtctgg attacaggac gtgacgccc cgcgccggcc 900
406 tatttttaat ttttgttgt ttgaaatgga atctcactct gttaccagg ctggagtgca 960
408 atggccaaat ctcggtctac tgcaacctct gcctcccggg ctcaagcgat tctcctgtct 1020
410 cagcctccca agcagctggg attacgggca cctgcaccac acccgctaa tttttgatt 1080
412 ttcattagag gcgggggttc accatatttg tcaggtgggt ctcaaaactc tgacctcagg 1140
414 tgaccacact gcctcagcct tccaaagtgc tgggattaca ggcgtgacgc ctacccagc 1200
416 cggctaattt agataaaaaa atatgtagca atgggggggtc ttgctatgtt gccaggctg 1260
418 gtctcaaaact tctggcttca tgcaatcctt ccaaagtgag cacaacacc agccagtcac 1320
420 atttttaaac agttacatct ttattttagt atactagaaa gtgatacgat aacatggcgg 1380
422 aacctgcaaa ttcgagtagt acagagtctt ttataact 1418
425 <210> SEQ ID NO: 5
427 <211> LENGTH: 22
429 <212> TYPE: DNA
431 <213> ORGANISM: Artificial Sequence
435 <220> FEATURE:
437 <223> OTHER INFORMATION: AD7c-NTP oligonucleotide
439 <400> SEQUENCE: 5
440 tgtcccactc ttaccagga tg
443 <210> SEQ ID NO: 6
445 <211> LENGTH: 24
447 <212> TYPE: DNA
449 <213> ORGANISM: Artificial Sequence
453 <220> FEATURE:
455 <223> OTHER INFORMATION: AD7c-NTP oligonucleotide
457 <400> SEQUENCE: 6
458 aagcaggcag atcacaagg ccag
461 <210> SEQ ID NO: 7
463 <211> LENGTH: 20

```

Use of n and/or Xaa has been detected in the Sequence Listing.  
 Review the Sequence Listing to insure a corresponding  
 explanation is presented in the <220> to <223> fields of  
 each sequence using n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/964,678A

DATE: 02/06/2002

TIME: 11:39:30

Input Set : A:\seqlist 0609\_4370002 ascii  
Output Set: N:\CRF3\02062002\I964678A.raw

L:576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:604 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14